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AMSAT NEWS SERVICE
ANS-218.01

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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SB SUN @ AMSAT $ANS-218.01
ANS-218.01 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 218.01
>From AMSAT HQ KENSINGTON, MD.
August 13, 2017
To All RADIO AMATEURS
BID: $ANS-218.01

Return of Experimenter's Wednesday to AO-85

With the recent popularity of Slow Scan Television (SSTV) from the ISS, AMSAT Operations is bringing back Experimenter's Wednesday to AO-85.

On a trial basis, we invite users to exchange pictures using Robot 36 SSTV mode via the FM repeater on AO-85 during UTC Wednesdays. Please identify prior to beginning transmissions, and only send when the uplink is clear.

Stations are requested to only uplink if they have a reasonable expectation of maintaining a full-quieting signal for the duration of

the image transmission.
Smaller stations are encouraged to focus on receiving the images.
Please don't send questionable or provocative images. If in doubt, pick another one.
Expect all ages to be participating.
Feedback is encouraged, and comments may be directed via email to me at ko4ma at amsat dot org.

[ANS thanks Drew KO4MA for the above information]

AMSAT-NA Vice President, Educational Relations, Joe Spier, K6WAO of Reno, NV, has been elected by the AMSAT-NA Board of Directors as Executive Vice President during a Board Meeting via a conference call that took place on August 8, 2017. Joe's new duties will include implementation of AMSAT-NA's Strategic Planning. He will continue in his other duties as 2017 Space Symposium Chairman, AMSAT News Service Co-Editor, ARISS-NA Education, and Educational Relations until new personnel can be appointed or the task assigned is completed.

Under the AMSAT ByLaws, the position of Executive Vice President is one of seven senior officer positions that are approved by the AMSAT Board of Directors.

Included in the ByLaw stated duties, "the Executive Vice President shall act in the place of the President in the President's absence, and shall have such other duties as the Board may determine." [Bylaws, Article II, Section 5B].

In addition, the Executive VP is assigned the responsibility of AMSAT External Relations team leader and as acting director of any team leader position that is not filled.

Joe is a Life Member of AMSAT-NA and has served in Educational Relations during the past six years. He also has Life Memberships in the ARRL, SARA (Society of Amateur Radio Astronomers) and the AFA (Air Force Association). He holds an Extra Class license as well Commercial licenses.

AMSAT-NA President, Barry Baines, WD4ASW said, "I extend my congratulations to Joe on his new position of leadership in AMSAT-NA. As EVP, he will be working closely with me on a variety of matters involving various AMSAT departments as we move forward on our strategic planning process as well as day-to-day management of the organization. Joe's dedication to the strategic planning process will enhance the future of AMSAT-NA."

[ANS thanks the AMSAT-NA BOD for the above information]

ARRL PR Poster Features Amateur Radio in Space

The ARRL offers a series of six posters that promote Amateur Radio to the general public. These were originally designed by ARRL for the 2017 National Scouting Jamboree, but may be used for any outreach effort. Each poster is 11" x 17".

One of the posters features amateur radio in space.
The six posters are based around the theme, "Ham Radio Is..."

Those themes are:

+ Adventure (Portable operating of all kinds)
+ Discovery (Making/Building/DIY)
+ Friendship (Community and Mentoring)
+ Out Of This World (space communications/satellites)
+ Ready (Publc Service)
+ The Game (Contesting and Awards)

A link to ARRL's "What Is Ham Radio" page is provided as both
a URL and a QR code on each poster.

The posters are available for free download in PDF format.
http://www.arrl.org/pr-posters

We suggest printing on high-gloss paper and framing them
for maximum effect.

[ANS thanks the ARRL for the above information]

AMSAT Phase 4 Groundstation

AMSAT Phase 4 Ground will next present at the GNU Radio Conference
in September, in San Diego, CA.

Register now at https://www.gnuradio.org/grcon-2017/

After that, we will be at the AMSAT Symposium in October, in Reno,
NV. More information at https://www.amsat.org/amsat-symposium/
Thank you to Paul Williamson and Steve Conklin for helping staff the
booth, bringing cool custom swag, setting up demonstrations, and
answering hundreds and hundreds of questions. We are already looking
forward to next year!

[ANS thanks Michelle Thompson, W5NYV for the above information]

AMSAT-NA BoD Ballots Due At AMSAT Office By September 15, 2017

Ballots for AMSAT-NA's Board of Directors were mailed to members in
good standing on July 15. Members are encouraged to complete their
ballots and return them as soon as possible. Ballots must be received
at the AMSAT office by September 15 in order to be counted.

This year AMSAT-NA will be electing four voting members of the Board
of Directors. These will go to the four candidates receiving the
highest number of votes. In addition, there will be one alternate
chosen, based on the next highest number of votes received.

The 2017 candidates, in alphabetical order by last name are:

Jerry Buxton, N0JY
Clayton Coleman, W5PFG
Drew Glasbrenner, KO4MA
Peter Portanova, W2JV
Paul Stoetzer, N8HM

Election of Board members is both an obligation as well as an opportunity by our membership to help shape the future direction of AMSAT. Please take the time to review the candidate statements that will accompany the ballot and determine who you wish to see on the Board. You have the option to vote for up to four candidates.

[ANS thanks AMSAT Office for the above information]

AMSATSA/SARL Workshop To Focus On Taking SDR To A New Level

The AMSAT SA/SARL workshop, to be held on Saturday 19 August at the SARL National Amateur Radio Centre at Radiokop Roodepoort, will focus on how to get more out of Software Defined Radio, and will take participants to another level in Amateur Radio activity.

The workshop will be presented in two sessions. Session one will deal with the VHF SDR dongle and how to have more fun, such as listening to satellites, receiving weather satellites pictures, and astronomy projects. The second session will discuss a HF Dongle and the SARL HF Noise floor monitoring project, with details and a demonstration of how to automate this and how to build an autonomous system using a raspberry Pi.

For more details and to check your registration status, point your browser to www.amsatsa.org.za or send an e-mail to admin at amsatsa.org.za

[ANS thanks SARL weekly news in English 2017-8-5 for the above information]

ARLK061 Keplerian data

Decode 2-line elsets with the following key:
1 AAAAAU 00 0 0 BBBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

0 AO-07
1 7530U 74089B   17222.89382764 -.00000034 +00000-0 +65403-4 0 9994
2 7530 101.6352 190.5113 0011675 214.9856 169.6542 12.53628132955487
0 FO-29
1 24278U 96046B   17222.88315093 -.00000020 +00000-0 +15539-4 0 9999
2 24278 098.5553 098.8469 0350108 195.5218 163.4964 13.53077139036025
0 ISS
1 25544U 98067A   17223.80427436 .00000839 00000-0 19944-4 0 9990
2 25544 51.6417 121.0685 0005753 127.9944 342.4344 15.54137576 70404
0 SO-50
1 27607U 02058C   17222.70530263 -.00000019 +00000-0 +17647-4 0 9997
2 27607 064.5567 318.9629 0030593 068.5242 291.9118 14.75346094787154
0 CO-55
1 27844U 03031E   17222.95672142 +.00000034 +00000-0 +35298-4 0 9990
2 27844 098.6896 231.1665 0009598 181.9520 178.1621 14.22051495732061
0 RS-22
1 27939U 03042A   17222.97040331 +.00000040 +00000-0 +15718-4 0 9990
2 27939 097.9469 005.9677 0014114 056.3493 048.5280 14.66584866741206

```
0 CO-58
1 28895U 05043F   17222.87314324 +.00000088 +00000-0 +25763-4 0  9993
2 28895 097.8709 022.6618 0016157 335.1569 024.8855 14.63418301628257
0 CO-65
1 32785U 08021C   17222.91711090 +.00000186 +00000-0 +25911-4 0  9995
2 32785 097.5644 244.6845 0012846 354.3527 005.7544 14.87920127502963
0 COMPASS 1
1 32787U 08021E   17219.63433091 +.00000659 +00000-0 +69181-4 0  9996
2 32787 097.5570 250.7406 0011708 333.3907 026.6710 14.92651841503170
0 DO-64
1 32789U 08021G   17222.94489045 +.00000684 +00000-0 +52430-4 0  9993
2 32789 097.5555 280.0153 0010897 275.4557 084.5426 15.05021247505002
0 RS-30
1 32953U 08025A   17222.93246189 +.00000006 +00000-0 -27611-4 0  9991
2 32953 082.5015 205.6094 0019184 161.8443 198.3326 12.43078449418222
0 KKS-1
1 33499U 09002H   17222.88213370 +.00000109 +00000-0 +24219-4 0  9997
2 33499 098.3375 029.8818 0008862 192.4626 167.6364 14.75208800459427
0 AO-71
1 37854U 11061E   17222.66330723 +.00001124 +00000-0 +68027-4 0  9995
2 37854 101.6957 123.9919 0166924 273.7613 084.4526 15.04249114314670
0 AO-73
1 39444U 13066AE  17222.57930650 +.00000238 +00000-0 +35934-4 0  9990
2 39444 097.6269 263.2963 0060073 088.8088 272.0007 14.81476715199070
0 UKUBE 1
1 40074U 14037F   17222.79095587 +.00000329 +00000-0 +47155-4 0  9994
2 40074 098.3518 340.1779 0003571 225.1982 134.8938 14.83534592167270
0 XW-2A
1 40903U 15049E   17222.87356365 +.00001746 +00000-0 +47328-4 0  9998
2 40903 097.4186 249.2480 0016516 071.5648 288.7391 15.38944766106055
0 XW-2C
1 40906U 15049H   17223.20886975  .00000610  00000-0  36481-4 0  9991
2 40906  97.4556 227.6027 0016062  29.9894 330.2255 15.14609982104560
0 XW-2F
1 40910U 15049M   17222.96013475 +.00000999 +00000-0 +55913-4 0  9996
2 40910 097.4544 227.8796 0016161 026.6269 333.5790 15.15634603104577
0 IO-86
1 40931U 15052B   17222.61952655 +.00000684 +00000-0 +62228-5 0  9996
2 40931 005.9980 204.6432 0013797 295.9894 063.7063 14.76535783101022
0 AO-85
1 40967U 15058D   17221.51251771  .00000256  00000-0  48666-4 0 00502
2 40967 064.7776 057.1238 0174670 058.2511 303.5480 14.75464490007664
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Keplerian bulletins are transmitted twice weekly from W1AW. The next scheduled transmission of these data will be Tuesday, August 15, 2017, at 2230z on Baudot and BPSK31.

[ANS thanks ARRL News Bulletin for the above information]

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* NASA Program Gives Students Access to Astronauts

On June 23, NASA astronaut Jack Fischer spoke with 22 Girl Scouts of North East Ohio, while he was aboard the International Space Station. More than 400 people attended the event, with many more watching live footage online.

Children all over the world can connect with astronauts aboard the space station via Amateur Radio on the International Space Station (ARISS), and with the help of volunteer ham operators. ARISS delegates from the United States, Russia, Canada, Europe and Japan help connect the world, from Senegal to Cincinnati, with the station. These contacts

endeavor to inspire youth worldwide to pursue science,
technology, engineering and math (STEM) interests and careers.

"Ham radio was one of the most rewarding things to do on the
International Space Station," said NASA astronaut Sunita Williams, a
former Girl Scout and Ohioan. "Having that connection with kids on
Earth who have worked hard to understand and build HAM radio was priceless.
Their excited voices, echoing through equipment they had a hand in
building, brought numerous smiles and often tears to my eyes.
Afterward, getting the reports on how the kids enjoyed the
event, and how amazed that they were that they were talking directly
with a space ship, really made me understand how important and how
easily we can get kids interested in STEM. ARISS is a great project
and we are so happy to be part of it on the International Space Station."

The Girl Scout mission is to build girls of courage, confidence and
character, who make the world a better place. Williams embodies this
tenet. She's lived more than 322 days in space over the course of four
expeditions to the ISS, Expeditions 14, 15, 32 and 33.
During her stay, she logged more than 50 hours of space walks, ran
the first marathon and triathlon in space, and participated in a number
of ARISS contacts. She currently trains to fly America's first commercially
built spacecraft, the Boeing CST-100 Starliner and the SpaceX Dragon.

The week prior to the contact, Sydney Walter, an 11-year-old
Girl Scout, participated in the Girl Scouts of North East Ohio's Space
Cadettes program at Camp Timberlane in Lorain County, Ohio. She met
with NASA professionals, learned what it's like to float in zero gravity
and explored constellations with a Starlab portable planetarium.
The ARISS contact rounded off a week of activities devoted to STEM
education.

"I really like that NASA can do this for kids at schools and Girl Scouts at
camp,"
said Sydney. "It was a really fun experience and I will never forget it."

Programs like this instill powerful memories that can spark a lifelong
passion
for STEM. For 10 minutes, with the space station in range of northern Ohio,
a
field of girls spoke with humans among the stars. Their vests now bear
patches
honoring that moment in time. Pink and green encircle a yellow tent with
the
bold gray shadow of the space station above. The patches honor 10 minutes
when they were not Girl Scouts - they were astronauts.

Volunteers from national amateur radio organizations and AMSAT run ARISS
events.
For more information and to learn how your community can get involved,
visit
www.ariss.org.

By Danny Baird
NASA's Goddard Space Flight Center, Greenbelt, Md.

Link to the patch http://tinyurl.com/ybp6zpll

[ANS thanks JoAnne K9JKM/Pat Kilroy, N8PK for the above information]

Mayak Fails to Deploy Solar Reflector

"Per Mayak’s simple design, the project engineers did not include a radio as the satellite could be programmed on the ground to autonomously execute its critical tasks in orbit to complete the deployment of the solar reflector. Later in the design stages it was realized that a radio would be beneficial, however, no radio channel could be allocated to the satellite this close to launch. A backup plan of using a series of LEDs on the satellite to deliver basic telemetry in the form of a visual Morse Code never came to fruition, leaving Mayak without any means of communicating its status to the ground."

http://tinyurl.com/ybeoz23n

[ANS thanks to AMSAT Bulletin Board for the above information]

Satellite Shorts From All Over

* Satellite Reporter

Andrew VK4TEC is working on a little project for space communications enthusatics It is a raspberry Pi, that is connected to the APRS-IS and will eventually also take in user reports as well
Andrew has setup a static ip http://59.167.159.165/
It is called "Satellite Reporter"
It is intended to provide a dashboard, stats in graphical format and also data streams.

Please let me know if you want any features added as this project grows.
I see a user input screen and drop downs for satellites.
I will make an iPhone and Samsung compatible version.
The back end is MySQL and PERL and CGI
I will add ISS for the time being, please check back often for updates.
I think it best to use UTC times for the time being.

[ANS thanks Andrew VK4TEC for the above information]

+ RX only i-gate

Dave, EI4HT operates an RX only i-gate in the UK MB7UEI-6.
Currently it uses AZ/EL active tracking antennas, VHF and UHF wimo Xquads, the system runs 24/7 and also tracks the 3 Funcube sats, Dave plans to expand this further and include the station on WEBSDR,

[ANS thanks Dave EI4HT / M0GIW for the above information]

+ Gride Expedition

Clayton Coleman (W5PFG) will depart for a satellite grid expedtion to northern Maine on Friday, August 18. The trip will conclude the

morning of August 21. I'll roughly follow the same path I used on a similar expedition January 2015.

Planned grids will be: FN54-57 and FN64-67

Due to the short duration of this trip, my satellite pass selection will be dynamic. I will probably not work many passes from each unique grid. I'll do my best to work from grid boundaries on passes with wide coverage.

Monitor my Twitter feed @w5pfg for updates during the trip.

[ANS thanks Clayton Coleman (W5PFG) for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Chris Bradley, KG5JUP
kg5jup at amsat dot org

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